



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,154	10/31/2003	Frederick M. Perkins	19529	9098
26480	7590	06/22/2005	EXAMINER	
LAWRENCE E. LAUBSCHER, SR. LAUBSCHER LAW OFFICES 1160 SPA ROAD SUITE 2B ANNAPOLIS, MD 21403			LUGO, CARLOS	
			ART UNIT	PAPER NUMBER
			3676	

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/697,154

Applicant(s)

PERKINS, FREDERICK M.

Examiner

Carlos Lugo

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:
 - Elements 2e and 104a are not described in the specification.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:
 - Element 76 is not illustrated in the drawings.
3. The drawings are objected to because:
 - In Figure 29, change "2d" to -2c-.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The specification is objected to because of the following informalities:

- Page 5 Line 11, change "the pivot shaft 8" to -the pivot shaft 18-.
- Page 5 Line 15, change "wall 8d." to -wall 8d.-.
- Page 7 Line 24, change "4d" to -2d-.
- Page 8 Line 20, change "2d" to -2c-.
- Page 8 Line 25, change "2d" to -2e-.
- Page 9 Line 10, change "Figs. 36-38" to -Figs. 35-38-.

Appropriate correction is required.

Claim Objections

5. **Claim 8 is objected** to because of the following informalities:

- Claim 8 Line 2, change "annual" to -annular-.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. **Claims 1-12 are rejected** under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation, "at least one of said adjacent latch end and strike member surfaces being convex, the transverse tips and valleys of the teeth carried by said convex surface being curved and having a radius of curvature corresponding

generally to the radius of curvature of said convex surface, thereby to compensate for slight misalignment between said latch and strike members” in lines 37-43. Claim 2 recites, “both of the adjacent surfaces of said latch and strike member are convex”.

It is unclear how at least one of the latch end and the striker member surface is convex. From the current specification (Page 1 Line 13-15) and drawings; the applicant uses the term convex to describe the teeth sets (tips and valleys) as being curved and convex; not the latch end or the striker member surface.

Therefore, in order to continue with the examination, the limitation will be examined as “said latch and said strike teeth comprises transverse tips and valleys, wherein at least one of said latch teeth and said strike teeth tips and valleys being curved and convex and having a radius of curvature corresponding generally to the radius of curvature of said convex surface, thereby to compensate for slight misalignment between said latch and strike members”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1,2 and 4 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 6,709,030 to Furlong in view of US Pat No 6,113,160 to Johansson et al (Johansson) and further in view of US Pat No 462,183 to Varney.

Regarding claims 1 and 2, Furlong discloses a latch and strike assembly comprising a generally tubular body (2) adapted for connection with a first support member. The body has a vertical longitudinal axis and a horizontal divider wall (Figure 8) defining upper and lower chambers in the body. The body has at its lower end a wall portion containing a transverse opening communicating with the lower chamber.

A latch member (24,26 and 30) is mounted in the wall opening for axial displacement between retracted and extended positions relative to the body. The latch member includes a first end portion (at 26) that extends from the housing when the latch member is in the extended position (Figure 5).

The assembly also comprises spring means (38) biasing the latch member toward the extended position relative to the body and release means (16) for displacing the latch toward the retracted position relative to the body.

However, Furlong fails to disclose that the assembly further comprises a striker member as a separate member connected to a second support member adjacent the latch first end and that the latch and the striker members are provided with a plurality of ratcheting teeth engaged to each other having a transverse tips and curved valleys. Furlong discloses that the latch member engages an extended surface that is part of the second support member (Figure 5).

Johansson teaches that it is well known in the art to have a latch member (240), mounted to a housing at a first support member, engaged to a striker member (212) that is a separate member mounted to a second support member.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching into Furlong's device of having a striker member as a separate member with respect to a support member, as taught by Johansson, since the fact that the members are separate elements in place of a one piece construction is a design consideration within the skill of the latches art that will not affect the mechanism of the assembly.

Also, Johansson teaches that it is well known to have a latch and a striker member provided with a plurality of ratcheting teeth engaged to each other.

Further, Varney teaches that it is well known in the art to have ratchet teeth connection between a latch (15) and a striker or keeper (6) that have transverse tips and curved valleys (Figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a ratchet teeth securing engagement into the Furlong's device, as taught by Johansson and Varney, in order to secure the striker with respect to the latch bolt.

As to claim 4, Johansson teaches that the strike member has a generally polygonal cross-sectional configuration.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 6,709,030 to Furlong in view of US Pat No 6,113,160 to Johansson et al (Johansson) and in view of US Pat No 462,183 to Varney as applied to claim 1 above, and further in view of US Pat No 5,484,178 to Sandhu et al (Sandhu).

Furlong, as modified by Johansson and Varney, fails to disclose that the strike member has a generally circular cross-sectional configuration. Furlong, as modified by Johansson and Varney, teaches that the strike member has a generally polygonal cross-sectional configuration.

Sandhu teaches that it is well known in the art to have a latch assembly having a latch member (40) engaged with a striker member (28) that has a generally circular cross-sectional configuration (Figure 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a striker member with a generally circular cross-sectional configuration, as taught by Sandhu, into a latch assembly as described by Furlong, as modified by Johansson and Varney, since it would be considered as a design consideration within the latch art that will not affect the engagement between the latch member and the striker member.

11. Claims 5, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 6,709,030 to Furlong in view of US Pat No 6,113,160 to Johansson et al (Johansson) and in view of US Pat No 462,183 to Varney as applied to claim 1 above, and further in view of US Pat No 1,636,069 to Perry.

As to claims 5 and 11, Furlong, as modified by Johansson and Varney, fails to disclose that the handle and the latch member are connected by means of a rack and pinion gear connection.

Perry teaches that it is well known in the art to have a latch assembly, wherein the handle (17) is connected to a latch member (7) by means of a rack and pinion gear connection (16 and 19).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a rack and pinion gear connection into Furlong's device, as taught by Perry, in order to operate the latch member from a closed to an open position.

As to claim 12, Johansson teaches that the latch assembly can be made of plastic.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the latch assembly made of plastic, since the selection of a known material based upon its suitability for the intended use is a design consideration within the level of skill of one skilled in the art.

Allowable Subject Matter

12. **Claims 6 and 8 would be allowable** if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Claims 7,9 and 10 would also be allowed because the claims depend from claims 6 and 8 respectively.

Reasons For Allowable Subject Matter

13. The following is an examiner's statement of reasons for allowable subject matter:

Claims 6 and 8 presents allowable subject matter over the prior art of record because the teachings of the references taken as a whole do not teach or render

obvious the combination set forth, including that the latch assembly further comprises an endplate connected to the body to close the body bottom end (claim 6) and that the latch assembly further comprises lock nut means threadedly connecting the body with the first support member.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo whose telephone number 571-272-7058. The examiner can normally be reached on 9-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.

C-L

Carlos Lugo
AU 3676

June 13, 2005



**BRIAN E. GLESSNER
PRIMARY EXAMINER**